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A STUDY OF ACADEMIC CHARACTERISTICS OF GENERAL CURRICULUM STUDENTS AFTER ONE SEMESTER, ONE YEAR, IN THE GENERAL CURRICULUM PROGRAM.

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THE GENERAL CURRICULUM PROGRAM WAS ESTABLISHED FOR BUILDING OF SKILLS AND DEVELOPMENT OF BREADTH OF BACKGROUND IN PREPARATION FOR CONVENTIONAL COLLEGE CLASSES. PRETESTS AND POST-TESTS WERE EVALUATED FOR 165 STUDENTS AFTER ONE SEMESTER IN THE PROGRAM AND SHOWED SIGNIFICANT INCREASES IN ACADEMIC SKILL LEVEL, WRITING, AND READING. SIMILAR RESULTS WERE FOUND AFTER A YEAR IN THE PROGRAM. THE PROGRAM APPEARS TO BE MOST EFFECTIVE WITH A TERMINAL ORIENTATION. MORE EMPHASIS SHOULD BE GIVEN TO READING AND CULTURAL ENRICHMENT. (WO)

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A Study of Academic Characteristics of General Curriculum Students After One Semester, One Year, in the General Curriculum Program

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Statement of Problem

The General Curriculum Program has now been in operation on the Forest Park Campus for one academic year. Since this program is experimental in nature, evaluation assumes a high priority in attempting to measure program success. Kibler, Danforth Consultant on Research and Evaluation for this program states: "The most effective instructional innovation is only effective experimentally to the extent that the outcomes of instruction are adequately and accurately measured."[1]

One of the stated preliminary instructional outcomes, or objectives, of the General Curriculum Program was described as "giving each student the opportunity to:

1. Improve basic academic skills of reading, writing, and math through the use of the Programmed Materials Learning Laboratory, and

2. Develop more breadth and depth in General Education background through participation in general education courses."

This extended-time project was undertaken to attempt to measure one important aspect of program success--change in student academic achievement- after one semester, one year, in the General Curriculum Program.

Review of Related Research

A large body of pre-post test data does not seem to be available on existing programs for the low ability college student. Anderson[2] included mention of three programs which are relevant to the present project.

> In Program 0 (Bakersfield, California) the evaluation report states: "It is felt that the general fund of knowledge and skills of these students have been increased. Deficiencies have been repaired and some students have been salvaged." The program included a course in social science, mathematics, and English
>
> Otis D. Fore at Morgan State College in Baltimore, Maryland, studied both the Negro graduate student and the entering Negro freshmen at that institution. In several of the special classes offered at the Morgan State College, it was found that "with special treatment, students accomplished in a relatively short period of time great achievement based on standardized examinations."

A third, more specific report, is found in an unpublished report on "The Basic Curriculum at Wilson" (Chicago City Junior College). With program emphasis on language and reading skills, the author reports that "students on the average raised their reading level from the 8th grade to the 9.5 grade in the first semester (Stanford Reading Test). Over the span of two semesters the increase averaged two grade levels, but this increase still left most students short by one or two grades of being able to read at the bare minimum level for college work."[3]

A fourth report, though verbal, seems relevant to this section. Dr. Brown, consultant to the General Curriculum's Programmed Materials Learning Laboratory, reported that students who were referred to the North Carolina Programmed Materials Lab because of basic academic skill deficiencies, on completion of their assigned materials, were all accepted to the regular college program, having attained a level of at least the minimum score for entrance.

In conclusion, little reported research is available regarding pre-post information of academic gains in low ability programs at the Junior College level. That which is available is positive. Specific information which spells out the tests used in measurement, as well as the treatment in pre-post situations would be invaluable for those attempting to set up a new program, or improve the old. The report on the basic curriculum at Wilson seems most helpful from this point of view.

Purpose of this Study

Following are listed two expected outcomes of this study:

Outcome I: Low-achieving students who complete one semester in the General Curriculum Program will improve significantly on their post-test scores in:

a. Basic academic skills as measured by the SRA reading placement test and the Wide Range Achievement Test (Numerical only).
b. Breadth of general education knowledge as measured by the Sequential Tests of Education Progress (STEP)- Reading, Writing, Mathematics, Social Studies, and Science.
c. General ability as measured by the School and College Ability test.

Outcome II: Low-achieving students who complete one year in the General Curriculum Program will improve significantly on their post-test scores in:

a. Basic academic skills as measured by the SRA reading placement test and the Wide Range Achievement Test (Numerical only).
b. Breadth of general education knowledge as measured by the Sequential Tests of Education Progress (STEP)- Reading, Writing, Mathematics, Social Studies, and

Science.

c. General ability as measured by the School and College Ability test.

For purposes of this project, scores on standardized achievement, ability and academic skill tests served as the criterion on which the measurement of outcomes was based.

Procedures

Kibler refers to the design used in this study as a "pre-experimental design" with the following steps:

Step I	Step II	Step III
Pre-test Standardized tests	Treatment General Education classes and the Programmed Materials Learning Laboratory	Post-test Standardized tests after one semester, one year in the General Education Program.

The following tests were used as a measure of the behavior under scrutiny:

General Ability: School and College Ability Test (SCAT), Form IA, IB

General Achievement: Sequential Tests of Education Progress (STEP), Form IA, IB
Reading
Writing
Mathematics
Social Studies
Science

Basic Academic Skills: SRA Reading Placement Test and the Wide Range Achievement Test (Numerical only). No alternate forms.

Raw scores were used in compiling the data for purposes of analysis.

All data for the study was collected during the academic year 1956-1966. The following time schedule was employed:

	Administered
Semester I (pre-test)	
School and College Ability Test, Form IA...	Prior to beginning of school
Sequential Tests of Educational Progress - Reading, Writing, Mathematics, Social Studies, Science.....	First five weeks of the semester
Wide Range Achievement Test (numerical only)	First week of the semester
SRA Reading Placement Test.....	First week of the semester
(post-test)	
School and College Ability Test, Form IA...	Not administered

Semester I cont'd

Sequential Tests of Educational Progress -
Reading, Writing, Mathematics, Social
Studies, Science, Form B.....Last week of semester
Wide Range Achievement Test (numerical only) Last week of the semester
SRA Reading Placement Test.....Last week of the semester

Semester II (pre-test)	Administered
School and College Ability Test, Form IA.....	Prior to entrance, new students
Sequential Tests of Educational Progress - Reading, Writing, Mathematics, Social Studies, Science, Form IA.....	First week, new students
Wide Range Achievement Test (numerical only)	First week, new students
SRA Reading Placement Test.....	First week, new students
(post-test)	
School and College Ability Test, Form IA.....	Third last week of semester - all students
Sequential Tests of Educational Progress - Reading, Writing, Mathematics, Social Studies, Science, Form IB.....	Last week of semester - all students
Wide Range Achievement Test.....	Last week of semester - all students
SRA Reading Placement Test	Last week of semester - all students

During the summer of 1966 the above data was recorded, using raw scores, as a preparation for analysis. The Washington University Computer Center was used to punch the cards and run the analysis. An unrelated test yielded means, standard deviations, and ratios.

Conclusions

One semester students: ...
Outcome IA--Low-achieving students who complete one semester (either Semester I or Semester II) in the General Curriculum Program will improve significantly on their post-test scores in Basic Academic Skills.

Complete data was available for 165 students who had spent one semester in the program. Results are as follows:

	Pre		Post			
	X	S.D.	X	S.D.	T	Level of sig.
SRA Reading	78.86	5.24	81.18	5.37	3.96	.001
Wide Range (Numerical)	44.67	10.63	51.07	11.02	5.36	.001

Results indicate that there was a significant increase in academic skill level of students who spent one semester in the General Curriculum Program.

Outcome 1B -- Low-achieving students who complete one semester in the General Curriculum Program will improve significantly on their post-test scores in breadth of general education knowledge.

Complete data was available for 165 students who had spent one semester in the program. Since raw scores were used in analysis, and Form A (pre-test) and Form B (post-test) were found not comparable, raw scores shown for the post-test are converted scores. Results are as follows:

	PRE		Post			
STEP	X	S.D.	X	S.D.	t ratio	level of significance
Reading	39.0	10.21	39.2	8.56	0.22	NS
Writing	29	6.70	31.48	6.96	3.08	.01
Math	19.5	5.40	19.98	5.06	0.89	NS
Soc.St.	32.	8.61	33.5	7.67	1.65	.10
Science	24.7	6.33	24.59	7.06	0.09	NS

Results show a significant increase in writing and a very positive trend in social studies. No significance is shown in reading, science, and math.

Outcome 1C -- Low-achieving students who complete one semester in the General Curriculum Program will improve significantly on their post-test scores in general ability.

Data was available on 75 students who completed one semester in General Curriculum. (The SCAT test pre and post was available only for student of Semester II of the academic year.) Results were as follows:

	Pre		Post			
SCAT	X	S.D.	X	S.D.	t ratio	Level of significance
Verbal	27.19	9.10	31.	9.35	2.5226	.02
Numerical	25.21	10.08	27.53	11.11	1.34	NS
Total	52.40	16.50	58.23	18.34	2.05	.05

Results indicate that there was a significant increase in the reading and total score. SCAT Numerical showed only a positive trend toward significance.

One Year Students:...
Outcome 2A -- Low-achieving students who complete one year in the General Curriculum Program will improve significantly on their post-test scores in Basic Academic Skills.

Data was available for 32 students who completed one year in the Program. Results are:

	Pre		Post			
	X	S.D.	X	S.D.	t ratio	Level of Significance
SRA Reading	76.28	5.54	80.44	5.04	3.14	.01
Wide Range (Numerical)	41.84	8.06	51.62	7.99	4.88	.001

Results indicate that there was a significant increase in Basic Academic Skills of students who spent one year in the General Curriculum Program.

Outcome 2B -- Low-achieving students who complete one year in the General Curriculum Program will improve significantly on their post-test scores in general education knowledge.

Results were available for 32 students. Post test raw scores again are converted scores. Results are:

	Pre		Post			
STEP	X	S.D.	X	S.D.	t ratio	Level of Significance
Reading	36.62	8.56	38.89	9.79	0.9852	NS
Writing	26.59	6.44	31.38	8.22	2.59	.02
Math	17.50	4.48	19.86	3.45	2.36	.05
Soc. St.	30.34	6.94	33.87	8.45	1.83	.10
Science	23.03	4.78	21.92	5.95	0.82	NS

Results indicate a significant increase in writing, math, and a positive trend in social studies. Science and reading showed no significant increase.

Outcome 2C -- Low-achieving students who complete one year in the General Curriculum Program will improve significantly on their post-test scores in general ability level.

Data was again available for 32 students. Results were as follows:

	Pre		Post			
	X	S.D.	X	S.D.	t ratio	Level of Significance
Verbal	22.63	5.77	26.93	6.59	2.78	.01
Numerical	22.156	6.66	26.16	7.02	2.34	.05
Total	44.97	10.84	52.75	12.65	2.64	.02

Results indicate a significant increase in verbal, numerical, total ability levels after one year in the program.

Resume: Both the one semester and one year General Curriculum students showed a significant improvement in basic academic skill levels.

One semester students showed a significant increase only in the General Education area of writing. Social Studies showed a positive trend toward significance (.10). One year students showed a significant increase in the areas of writing, math, and social studies. Reading and science changes were not significant.

There was a significant increase in verbal and total scores on the School and College Ability test for both one semester and one year students. One year students only showed a significant increase in numerical level.

Discussion: If program success is to be measured by significant gains made by students, the above data would support the contention that the program was quite successful. Gains do reach numerical significance, and yet, there is considerable doubt that the level attained on post-testing represents enough of an increase to warrant transfer of the <u>average</u> one-semester or one-year General Curriculum student to any technical or transfer program at the college. Below is a table which transforms raw scores to comparable grade levels or percentile scores.

	One Semester					One year				
	Pre		Post			Pre		Post		
	X	Grade	X	Grade	Sig.	X	Grade	X	Grade	Sig.
SRA Read'g	78.86	7th	81.18	7th	.001	76.28	6th	80.44	7th	.01
Wide Rng.(N)	44.67	9th	51.07	10.6	.001	41.84	8.3	51.62	10.8	.001
	X	%ile	X	%ile		X	%ile	X	%ile	
STEP:*1										
Reading	39	22	39.2	22	NS	36.6	18	38.89	22	NS
Writing	29	29	31.5	32	.01	26.6	14	31.38	32	.02
Math	19.5	40	19.98	40	NS	17.5	28	19.86	40	.05
Soc.Sts.	32	33	33.5	40	.01	30.3	26	33.87	40	.10
Science	24.66	34	24.59	34	NS	23	27	21.92	21	NS
	X	%ile	X	%ile		X	%ile	X	%ile	
SCAT:*2										
Verbal	27.19	12	31.00	24	.02	22.6	4	27	12	.01
Numerical	25.21	7	27.5	11	NS	22.2	4	26	10	.05
Total	52.4	7	58.0	12	.05	45.	4	53	8	.02

*1 Norms used are national norms given in STEP Manual for Grade 13.
*2 Norms used are local norms which represent college freshmen at the University of Missouri

The reader will note that the SCAT post-test total for students who spent one year in General Curriculum is at the 8th percentile, still below the cut -off point for which students are recommended to enter the program.

The results on general knowledge science pre-post tests are confusing. Why should the one-semester group show no gain and the one-year group a decrease?

Reading seems to need more focus in the program. Pre and post scores in these areas are generally lower than pre and post scores on math/numerical ability. Raising the level of required work in reading to the 12th grade level may be advisable.

Recommendations

1. The above data strengthens the position that the General Curriculum Program should be considered a terminal program for a majority of its students. Placement outside of JCD and cultural enrichment should be given the major focus in the program.

2. I would suggest concentration on raising the reading level, and giving more systematic skill training in reading via the General Education Program.

3. Results should be used as an indication to future students of expectations which they may reasonably hold for themselves after one semester or one year in the General Curriculum Program.

BIBLIOGRAPHY

1. Kibler, Robert, "Research and Evaluation in the General Curriculum," The General Curriculum, a proposal for the development of a program for the educationally disadvantaged. The Junior College District of St. Louis - St. Louis County, Missouri, 1965. (Mimeographed)

2. Anderson, Duane, "A Review of Literature Pertaining to the General Curriculum," The General Curriculum, a proposal for the development of a program for the educationally disadvantaged. The Junior College District of St. Louis - St. Louis County, Missouri, 1965. (Mimeographed)

3. Monroe, Charles R., "The Basic Curriculum at Wilson" (Revised Report). Chicago City Junior College (Wilson Branch). April, 1964